

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant	:	Pyun, et al.
App. No.	:	Unknown
Filed	:	Herewith
For	:	THERMOSTABLE L-ARABINOSE ISOMERASE AND PROCESS FOR PREPARING D-TAGATOSE
Examiner	:	Unknown
Group Art Unit	:	Unknown

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing references that are also enclosed. This Information Disclosure Statement is being filed concurrently with the application and no fee is believed to be required in accordance with 37 C.F.R. § 1.97(b)(1), (b)(2), or (b)(4).

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 6/20/03

By: 

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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. LEELE81.001C1	APPLICATION NO. Unknown
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Pyun, et al.	
		FILING DATE Herewith	GROUP Unknown

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
		5,002,612	03/26/91	Beadle et al.	127	46.1	
		6,057,135	05/02/00	Ibrahim et al.	435	105	

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	Yoon-Hee Lee et al., <i>Cloning, Sequencing and Expression of Thermostable L-Arabinose Isomerase from Thermotoga neapolitana</i> , International Symposium on the Korean Society for Applied Microbiology (2001)
	Y. H. Hong et al., <i>Bioconversion of D-galactose to D-tagatose by Thermostable Immobilized L-arabinose Isomerase from Thermatoga Neapolitana</i> , The 4 <sup>th</sup> International Congress on Extremophiles (2002)
	Sang-Jae Lee et al., <i>Characterization of Thermostable and Acidiphilic L-arabinose Isomerase from Alicyclobacillus Acidocaldarius</i> , The 9 <sup>th</sup> International Symposium on the Genetics of Industrial Microorganismx (2002)
	Hye-Jung Kim et al., <i>A Feasible Enzymatic Process for D-tagatose Production by an Immobilized Thermostable L-arabinose Isomerase in a Packed-Bed Bioreactor</i> , Biotechnol. Prog., 19:400-404 (2003)
	Byoung-Chan Kim et al., <i>Cloning and Expression and Characterization of L-arabinose Isomerase from Thermotoga Neapolitana: Bioconversion of D-galactose to D-tagatose using the Enzyme</i> , FEMS Microbiology Letters, 212:121-126 (2002)
	Pil Kim et al., <i>Improvement of Tagatose Conversion Rate by Genetic Evolution of Thermostable Galactose Isomerase</i> , Biotechnol. Appl. Biochem., 34:99-102 (2001)
	Pil Kim et al., <i>High Production of D-tagatose, a Potential Sugar Substitute, using immobilized L-arabinose Isomerase</i> , Biotechnol. Prog., 17:208-210 (2001)
	Miroslav Sedlak and Nancy W.Y. Ho, <i>Expression of E. coli araBAD Operon Encoding Enzymes for Metabolizing L-arabinose in Saccharomyces cerevisiae</i> , Enzyme and Microbial Technology, 28:16-24 (2001)
	Hoe J. Roh et al., <i>Bioconversion of D-galactose into D-tagatose by Expression of L-arabinose Isomerase</i> , Biotechnol. Appl. Biochem., 31:1-4 (2000)
	Isabel Sá-Nogueira et al., <i>The Bacillus subtilis L-arabinose (ara) Operon: Nucleotide Sequence, Genetic Organization and Expression</i> , Microbiology, 143:957-969 (1997)
	Kristine Deanda et al., <i>Development of an Arabinose-Fermenting Zymomonas mobilis Strain by Metabolic Pathway Engineering</i> , Applied and Environmental Microbiology, 62:4465-4470 (1996)
	Soojay Banerjee et al., <i>The Evolution of Sugar Isomerases</i> , Protein Eng., 8:1189-1195 (1995)

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EXAMINER	DATE CONSIDERED
<b>*EXAMINER:</b> INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	